

Alignment of Nulake Year 13 Calculus and Nulake Year 13 Statistics and Modeling Workbooks to Qatar Grade 12AS Mathematics for Science Standards

Overall features:

- Differentiated questions at 3 levels – Achievement/Merit/Excellence supports differentiated teaching.
- There are good notes and examples on use of graphic calculators –useful for teachers who have not had pd
- Advice on customizing the workbook for individual learning styles is included.
- Hints on how to study and how to use the book are included for teachers.
- The book is cheap – should be QR60 or thereabouts so it is feasible that every student have one as their basic workbook.
- The language is appropriate.
- The authors are open to writing specific sections to meet local conditions if numbers are guaranteed – e.g. a section on vectors could be included if requested.
- Highlighted notes and worked examples are well set out.
- Whereas many schools seem to send textbooks home for the students to use for homework (and they remain there unused for the year) and at the same time many students do not bring their workbooks to class, this combines the 2 books in one.

Alignment of Nulake Year 13 Calculus Workbook and Year 13 Statistics and Modeling Workbook to Grade 12AS Course

SoW Unit	Standards Covered	Nulake Work Book and Chapter	Standards Omitted	Comment
12AS-01	12AS 4.1	Year 13 Statistics and Modeling Workbook Chapter 3.0	Most of 12AS-01	12AS is covered in Nulake Year 12 Workbook Chapter 1.0 with the exception of division of polynomials and binomial expansions
12AS-02	12AS 1.6, 1.7, 1.7, 12.1, 12.2, 12.3, 12.4	Year 13 Calculus Workbook Chapter 3.0		Chapter 3.0 includes proofs of trigonometry identities
12AS-03	12AS 5.1, 5.2, 5.8,	Year 13 Statistics and	12AS 5.3 12AS 5.4	12AS 5.8 is covered only

	5.9, 6.1, 6.2, 6.3, 6.4	Modeling Workbook Chapter 7.0 Year 13 Calculus Workbook Chapters 3.0, 4.0 and 5.0	12AS 5.5, 5.6, 12AS 5.9 parametric functions are covered in the context of Conics	in the context of trigonometric functions
12AS-04			12AS-04	
12AS-05	All	Year 13 Calculus Workbook Chapters 1.0		
12AS-06			12AS-06	Much of this is covered in context throughout Nulake Year 13 Calculus Workbook
12AS-07		Year 13 Calculus Workbook Chapters 1.0	12AS 9.2, 9.3	
12AS-08			12AS-08	
12AS-09	All	Year 13 Calculus Workbook Chapter 2.0		
12AS-10	All	Year 13 Calculus Workbook Chapter 2.0		
12AS-11	All	Year 13 Calculus Workbook Chapter 2.0		
12AS-12			12AS-12	
12AS-13	All	Year 13 Calculus Workbook Chapter 2.0		
12AS-E1	All	Year 13 Calculus Workbook Chapter 4.0		
12AS-E2			12AS-E2	12AS 9.5 the Newton- Raphson Method is covered in Nulake Year 13 Statistics

				and Modeling Workbook Chapter 4.0
--	--	--	--	--